# **Decision Support Briefing**

**Southeast River Forecast Center** 



# Hydrologic Vulnerability Assessment for Nicole and the Florida Peninsula

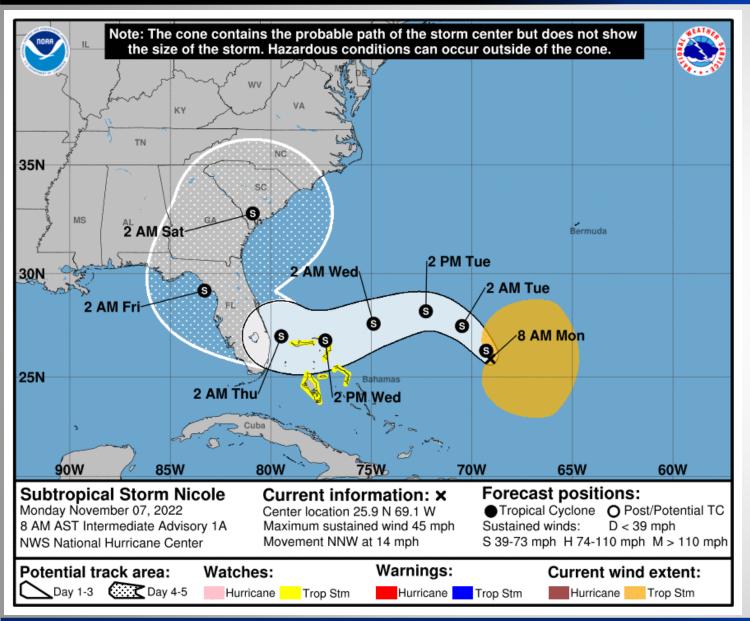


**Issued:** 1:18 PM ET Monday, November 7, 2022



- **Subtropical Storm Nicole has formed in the Atlantic and is** expected to be a large storm with widespread impacts including coastal flooding and heavy rainfall.
- Nicole could be at hurricane strength by the time it reaches the east coast of Florida and is forecast to produce 2 to 4 inches of rainfall with localized totals of 6 inches
- The St. Johns river remains in moderate flood and expectations are that the recession will stop and there could be a slow rise in many points by the end of the week.
- It is too early to tell how much the river will rise and forecast will be adjusted during the week as landfall approaches.

#### Subtropical Storm Nicole



Nicole is currently a subtropical storm headed toward the east coast of Florida.

This is expected to be a large storm that could become a category 1 hurricane by landfall. Regardless of strength, heavy rain and coastal flooding are expected as Nicole gets closer to Florida.

### 30-Day Departure From Normal Precipitation

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Mostly below normal rainfall in last 30 days



Rainfall since Hurricane Ian has fortunately remained mostly below normal.

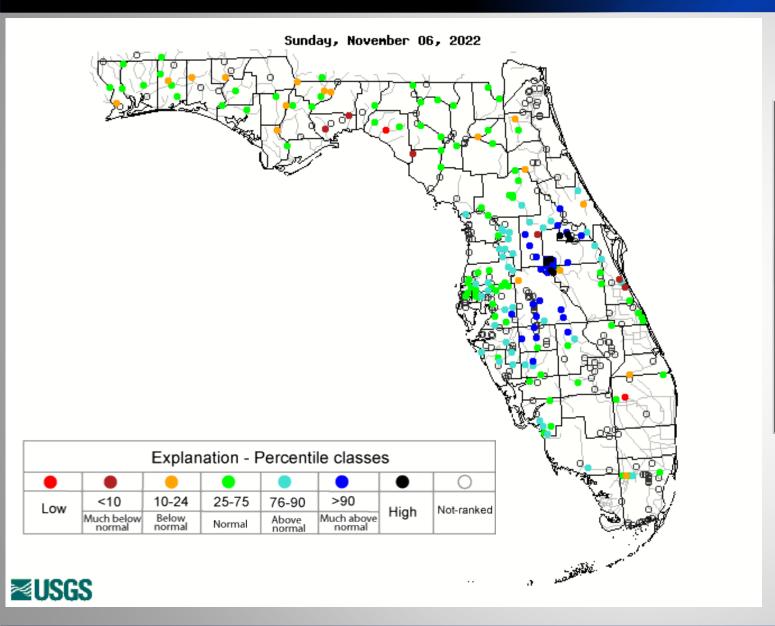
Here is a 30-day departure from normal rainfall graphic that depicts mostly dry conditions with isolated areas of heavy rain from storms during that time.

This has helped the area dry out some and rivers in the areas are receding.

## 7-day average streamflow compared to normal



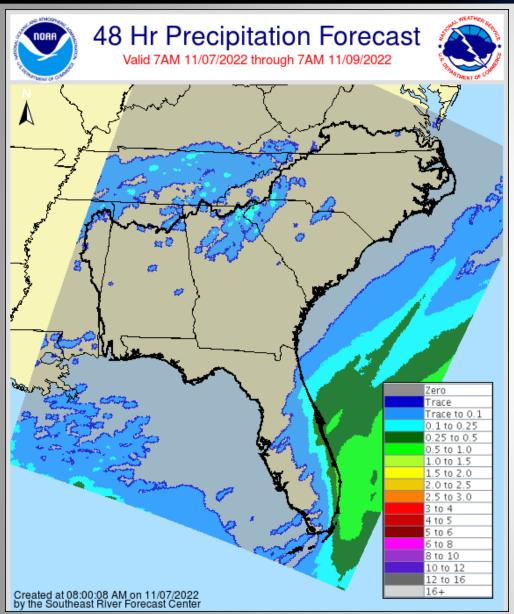




While the St. Johns and other central Florida basins continues to recede, the river stages remain above normal for most of the Florida peninsula.

Hurricane Ian dropped significant amounts of rain at the end of September and rivers remain elevated through most of the region.

This is the forecast used in our daily deterministic river forecast



SERFC forecasts include a 48-hour rainfall forecast each time they are issued from the office.

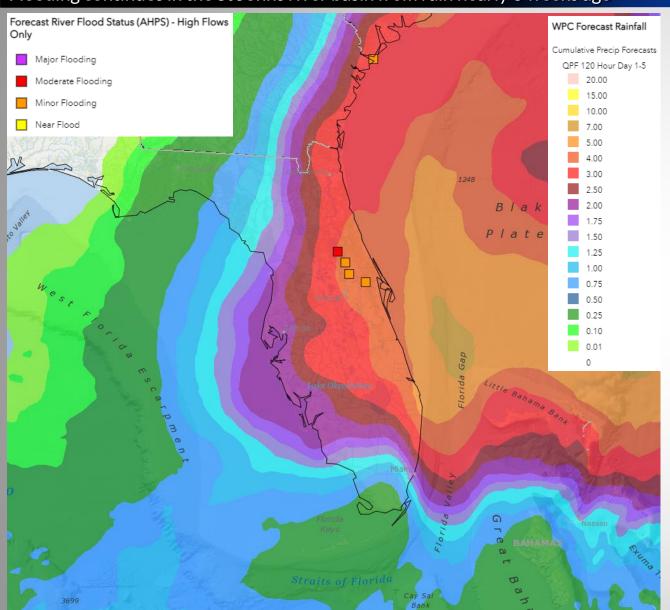
At this time, forecasts in Florida do not include expected rainfall from Nicole.

As Nicole approaches the area, these forecasts will update to reflect the most up to date information.

### St Johns River flooding...from Hurricane Ian

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Flooding continues in the St Johns river basin from rain nearly 6 weeks ago



Here is the 5-day rainfall forecast from the Weather Prediction Center overlaying the current flooded points on the St. Johns river.

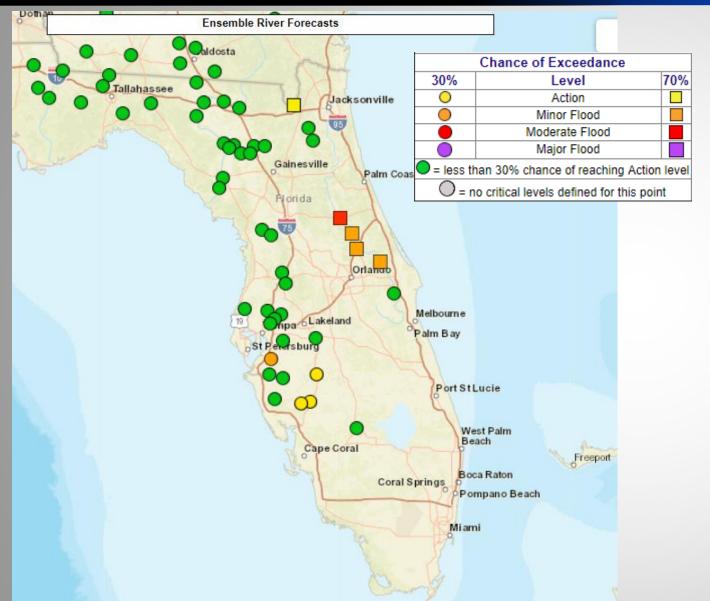
There is still uncertainty in Nicole's path and the location of the heaviest rainfall. However, this is a large storm and rainfall is expected in the area.

2 to 4 inches of rain with isolated areas of 6 inches are possible.

Stay tuned throughout the week for updates to rainfall and river forecasts.

#### Meteorological Model Ensemble Forecast

**MMEFS** 



The Meteorological Model Ensemble Forecast System (MMEFS), to the left, is using the NAEFS model and addresses uncertainty in the longer lead rainfall forecast that helps to provide a confidence level for potential flooding. The NAEFS runs in our model every 12 hours.

A few points in south of the Tampa area have the potential to rise to action or flood stage from rains from Nicole. The St. Johns river basin is likely to see a reversal of falling rivers and many points in the basin could rise again. The SERFC and Melbourne WFO will provide more details as Nicole approaches the coast.

To take a closer look, here is the link to more detailed information:

https://www.weather.gov/erh/mmefs

- SERFC will continue on normal operations until Nicole's rain moves into Florida. Notifications will go out when we plan to go into 24 hour operations.
- The Decision Support Briefing will continue until further notice.

Latest River Stages and Forecasts are available...click here!

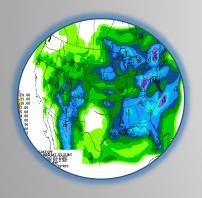
Please send all operational correspondence to <a href="mailto:sr-alr.rivers@noaa.gov">sr-alr.rivers@noaa.gov</a> or call the office directly.



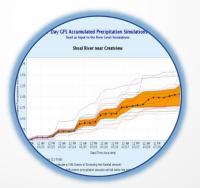
**Latest Radar** 



**SERFC Quick Brief** 



**Latest Forecast Rainfall** 



**MMEFS - Ensemble River Forecasts** 

- This product has set the stage for the upcoming event. The Decision Support Briefing will begin tomorrow to update you on current conditions and changes to the forecast.
- These slides are intended for your use. Please feel free to share these with others. If you have any questions please email <a href="mailto:sr-alr.rivers@noaa.gov">sr-alr.rivers@noaa.gov</a> or contact your local NWS Weather Forecast Office.
- <u>Remember</u>: SERFC briefings cover freshwater flooding. For information on coastal and tidal flooding, flash floods, winds, and severe weather risks, please contact your local Weather Forecast Office.